Amendments to the Specification:

Please replace the paragraph beginning on Page 2, line 11 with the following amended paragraph:

An intelligent power system is presented. The system includes one or more common power sources and one or more subsystem components interconnected with the common power sources. Each common power source includes a regulated bus, an unregulated bus, a sensor, a controller and a plurality of switches operated by the controller. A subsystem component includes a regulated bus, an unregulated bus, a power [power*r] source, a sensor, a controller and a plurality of switches operated by the controller. With such a configuration, the system is able detect and isolate failed segments of the power system and is reconfigurable to restore power.

Please replace the paragraph beginning on Page 4, line 7 with the following amended paragraph:

Referring now to Figure 2, a high-level block diagram of the presently disclosed power system 100 is presented. This architecture comprises a common power source and $m*n = k$ interconnected subsystems 120. The number of connections between subsystems 120 and the common power source 110 may vary from zero (a self-sufficient system) to $m*n$ (a source-dependent system). Each line between a subsystem 120 and the common power source 110 represents multiple power and signal connections. The number of interconnections between subsystems may vary from zero (a completely independent system) to $[m*n - 1] k*(k-1)/2$ (a fully connected system). Each line between subsystems 120 in Figure 2 represents multiple power and signal connections between the subsystems 120. Another version of this architecture includes multiple subsystems wired together and connected to the common power source as groups.

Please replace the paragraph beginning on Page 4, line 19 with the following amended paragraph:

A block diagram of the common power source 110 is shown in Figure 3. The common power source 110 includes an unregulated voltage bus 112, a regulated voltage bus 114, Po power sources 116, Ro regulators 118, So bus stabilizers 111, Eo energy storage units 113, sensors 115 and a controller 117, where Po, Ro, So and Eo are each respectively an integer equal to or greater than one. A power source [110]116 may be realized as a battery, a generator, a fuel cell, a solar cell or the like. A stabilizer 111 is similar to a regulator in that a stabilizer is a power conversion device wherein one voltage level is converted to another voltage level. An energy storage device 113 may be realized as a battery, flywheel, capacitor, inductor or similar type device. All elements of the common power source except the controller 117 and sensors 115 are connected to one or both buses through controlled switches 119. The switches 119 may be electronic solid state, vacuum tube, or electro-mechanical devices. The output of each regulator 118 is connected to regulated buses of all subsystems as well as the regulated bus 114 of the common source. As an alternative, the common regulated bus 114 may be connected to one or more regulated buses of individual subsystems. The subsystem-to-subsystem control signals interconnect may be the same interconnect (electrical (wire-based), optical, infrared, RF, etc.) used for interconnecting a subsystem controller to a power source controller, although other embodiments may use a different interconnect for the subsystem-to-subsystem control signals interconnect than the subsystem-to-power source control signals interconnect.

Please replace the paragraph beginning on Page 5, line 8 with the following amended paragraph:

Referring now to Figure 4 a block diagram of a subsystem 120 (subsystem 1,1 of Figure 2 in this example) is shown. The subsystem includes a regulated voltage bus 122, an unregulated voltage bus 123, PR regulated power sources 127 (only one shown in Figure 4), R regulators 126 (only one shown in Figure 4), S bus stabilizers 129, E energy storage units 128 (only one shown in Figure 4), D loads 121, sensors 124 and a subsystem controller 125, where PR, R, S, E and D are each respectively an integer equal to or greater than one. All subsystem elements except the controller 125 and sensors 124 are connected to one or both buses through controlled switches

130. Each regulated power source 127 is connected to regulated buses of all other subsystems as well as to the internal regulated bus 122.

Please replace the paragraph beginning on Page 8, line 12 with the following amended paragraph:

Other modes of operation supported by the present power system architecture include a self-sufficient mode of operation wherein both subsystems are disconnected from each other and the common source, a mode wherein operation is from the common power source, a [node] mode wherein operation is from the power source in the second subsystem, and a time-shared mode of operation wherein some or all of the power sources are turned on sequentially.